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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* KARL H. MAURITZ and DAVID W. FRAME

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Appeal 2008-2570  
Application 10/609,216  
Technology Center 2100

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Decided: December 8, 2008

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Before HOWARD B. BLANKENSHIP, JEAN R. HOMERE, and  
CAROLYN D. THOMAS, *Administrative Patent Judges*.

BLANKENSHIP, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-30, which are all the claims in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We reverse.

Claim 1 is illustrative.

1. A circuit comprising:

a plurality of memory modules;

a memory controller coupled to the plurality of memory modules;

a resistive bus splitter coupled between the plurality of memory modules and the memory controller to split signals communicated between the plurality of memory modules and the memory controller, the resistive bus splitter having a specific resistance for each memory module; and

a plurality of terminators to reduce signal reflections corresponding to the split signals.

The Examiner relies on the following references as evidence of unpatentability.

Freker	US 6,442,645 B1	Aug. 27, 2002
Jeddeloh	US 2004/0044933 A1	Mar. 4, 2004
Morris	US 6,862,185 B2	Mar. 1, 2005
Nizar	US 6,889,284 B1	May 3, 2005
Talbot	US 2005/0166006 A1	Jul. 28, 2005

Claims 1-30 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 1, 4, 7, 8, 14, 17, and 19-21 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Morris.

Claims 2, 3, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris.

Claims 8-13 and 21-26 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris and Talbot.

Claims 5, 6, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Morris and Jeddelloh.

Claims 27-29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Freker and Morris.

Claim 30 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Freker, Morris, and Nizar.

*I. Section 112, first paragraph rejection*

To comply with the “written description” requirement of 35 U.S.C. § 112, first paragraph, an applicant must convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention. The invention is, for purposes of the “written description” inquiry, whatever is now claimed. *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991). To “convey with reasonable clarity to those skilled in the art” may also be expressed in terms of whether the “necessary and only reasonable construction” to be given the disclosure by one skilled in the art clearly supports the limitation now claimed. *See Hyatt v. Boone*, 146 F.3d 1348, 1354 (Fed. Cir. 1998) (“We do not view these various expressions as setting divergent standards for compliance with § 112. In all cases, the purpose of the description requirement is ‘to ensure that the inventor had possession, as of the filing date of the application relied on, of the specific subject matter later claimed by him.’”) (quoting *In re Edwards*, 568 F.2d 1349, 1351-52 (CCPA 1978)).

The invention claimed does not have to be described in *ipsis verbis* in order to satisfy the written description requirement. *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 1000 (Fed. Cir. 2000). However, one

skilled in the art, reading the original disclosure, must be able to immediately discern the limitations now claimed. *See Waldemar Link GmbH & Co. v. Osteonics Corp.*, 32 F.3d 556, 558 (Fed. Cir. 1994) (“The fact finder must determine if one skilled in the art, reading the original specification, would immediately discern the limitation at issue in the parent.”). A description which renders obvious the invention for which the benefit of an earlier date is sought is not sufficient. *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997).

One shows “possession” by descriptive means such as words, structures, figures, diagrams, and formulas that fully set forth the claimed invention. *Lockwood*, 107 F.3d at 1572. It is not sufficient for purposes of the written description requirement that the disclosure, when combined with the knowledge in the art, would lead one to speculate as to modifications that the inventor might have envisioned, but failed to disclose. *Id.*

The Examiner finds that certain claim recitations, as exemplified in the claim 1 language of the resistive bus splitter “having a specific resistance for each memory module,” are not supported by the application as filed. In the Examiner’s view, the Specification discloses (¶¶ [0024] and [0025]) having a “specific impedance” for each memory module, but the “impedance” is not necessarily the same as “resistance,” because impedance depends in part on the frequency of the applied signal. (Ans. 3.)

Appellants argue, *inter alia*, that page 13, lines 17 through 18 of the Specification states that bus splitters are resistive. Appellants submit that the Specification teachings provide ample support for the splitter having a specific resistance for each memory module. (Br. 6.)

The Examiner refers to the “Rs” formula in paragraph [0022] of the Specification, and again refers to paragraphs [0024] and [0025]. (Ans. 13.) The Examiner does not, however, respond to Appellants’ reliance of the material at page 13 (¶ [0028]) of the Specification. (See Ans. 13.)

The Specification at paragraph [0028] refers to utilization of bus splitters that allow a “frequency independent bus,” in which the bus splitters may be “miniature resistive splitters on the PCB or miniature integrated resistor packs.”

In our view, the Specification at paragraph [0028] serves to describe an embodiment of the invention sufficient to support the claim recitations in controversy. In any event, the Examiner has not explained how the Specification, which includes the section relied upon by Appellants, would fail to convey possession of the presently claimed invention to one skilled in the art.

We therefore do not sustain the § 112, first paragraph rejection of claims 1 through 30.

## *II. Prior art rejections*

Independent claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Morris. Appellants contest the finding of anticipation on the basis that Morris does not provide information with respect to how busses connect the components together. Appellants submit that the memory bus of Morris should be assumed “completely conventional.” (Br. 7.)

The Examiner reads the claimed “resistive bus splitter” as “inherently” present in the circuit shown in Figure 2 of Morris. (Ans. 13.) Specifically, the Examiner finds the “resistive bus splitter” to be “embedded

in the memory board 203 to split the signals sent from high speed connectors 205 and 209 into plurality of connectors 202 coupled to the memory modules 201.” (*Id.* at 4.)

Morris describes memory board 203 (Fig. 2) as preferably connected to the system board 212 by one or more high speed connectors 205, 209. Morris col. 3, ll. 58-59.

Thus, signals that need to be routed to the memory modules 201 would be routed from the system board 212, to either/both connectors 205, 209, to the memory board 203, and then to one or more memory modules 201, through one or more connectors 202. Similarly, signals routed from the memory modules 201 to the system board 212 would follow a reverse path. Morris col. 3, l. 66 - col. 4, l. 5.

Morris also refers to memory board 203 as having power wires or planes, ground wires or planes, connector pins and mating contact portions, board vias, and data wires. *See* col. 5, ll. 3-7.

The allocation of burdens requires that the USPTO produce the factual basis for its rejection of an application under 35 U.S.C. §§ 102 and 103. *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984) (citing *In re Warner*, 379 F.2d 1011, 1016 (CCPA 1967)). The one who bears the initial burden of presenting a prima facie case of unpatentability is the Examiner. *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

We agree with Appellants to the extent that the Examiner has not provided evidence, or convincing argument, sufficient to show that the artisan would consider Morris to necessarily include a “resistive bus splitter” as required by instant claim 1.

As Appellants submit, the other independent claims (14 and 27) contain similar limitations with respect to a resistive bus splitter. The § 102

rejection of claim 14 over Morris suffers the same deficiency as the rejection applied against claim 1. (*See* Ans. 5.) The § 103 rejection of claim 27 over Freker and Morris relies on the same finding that has been contested and demonstrated erroneous by Appellants. (*See* Ans. 10.) As the rejections against the dependent claims do not remedy the deficiency in the rejections applied against the independent claims, we cannot sustain the rejection of any claim on appeal.

### CONCLUSION

The rejection of claims 1-30 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement is reversed.

The rejection of claims 1, 4, 7, 8, 14, 17, and 19-21 under 35 U.S.C. § 102(e) and the rejections of claims 2, 3, 5, 6, 8-13, 15, 16, 18, and 21-30 under 35 U.S.C. § 103(a) are reversed.

### REVERSED

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